REMARKS

The claims are claims 1 to 7.

The application has been further amended at many locations to correct the serial number of the patent application cited at page 1, lines 20 to 22. These amendments include further correction to the paragraph at page 11, lines 3 to 16 to change "merge unit 32" to "merge unit 46."

A new drawing correction is attached. Figure 5 has been labeled Prior Art as requested by the Examiner. Figure 4 has been amended to delete the arrowheads on the display lines. This amended drawing is supported in the original application. The original application states at page 6, lines 10 and 11:

> "Figure 4 illustrates an electrical connection view of the coupling between the access adapter and the target system;"

The original application also states at page 11, lines 3 and 4:

> "Figure 4 illustrates an electrical connection view of the coupling between access adapter 2 and target system 3."

The Applicant respectfully submits that it is known in the art that display line arrows are not customarily used on electrical connection diagrams to show signal flow. Thus the original application does provide support for removing the arrows in Figure 4. Since the electrical connections of Figure 4 do not show signal flow, there is no lack of showing the input to merge 46.

Claims 1 to 7 were rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention and

further rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention. The OFFICE ACTION states at paragraph 6-1 on page 4:

> "6-1. Applicant's amendment to the original specification at page 18, lines 13-14, to delete the language "when the ACNTL register ASTOP and AFEN bits are true" in order to overcome the rejections under 35 U.S.C. 112, first paragraph (section 6, paper # 5), sets a different condition for the address comparison unit 310 to generate a debug suspend request. The new condition does not appear to have support in the original disclosure."

In addition the OFFICE ACTION states at paragraphs 9-1 on pages 7 and 8:

> "9-1. Applicant's argument (1) is not persuasive. Applicant's own admission, 'the amended language is general where the original language was specific', confirms the fact that the amended language has broadened the original disclosure. In other words, the amended language introduces new matter."

The Applicant respectfully submits that the cancellation requested to page 18, lines 12 to 14 does not add new matter to the application.

The relevant limitations in claim 1 are the steps of "detecting a first debug event during normal program execution" and "detecting at least one second debug event during an interrupt service routine executing while suspending normal program execution." The Applicants submit that this is a general and generic limitation. The original application stated at page 18, lines 9 to 14:

"The address comparison unit 310 configures for event generation where the AMSK register serves as an address mask register and the AREF register serves as an address reference. The address comparison unit 310 generates a debug suspend request when the ACNTL register ASTOP and AFEN bits are TRUE."

The applicant respectfully submits that this original language includes both a general and a specific teaching of the steps of detecting the first and second debug events. The language "configures for event generation" and "generated a debug suspend request" teaches the general and generic concept. If the AFEN bit were adequately disclosed, the language regarding the AFEN bit would teach a specific species of the generic concept. The proposed amendment deletes the teaching of a specific species limitation. The original language taught the genus and inadequately taught the species. The amended language teaches only the genus. As a result of the deletion the Applicant can claim the genus and cannot claim the species. This is not introduction of new matter because the Applicant can claim less subject matter (genus only) than previously possible (genus and species). The amended language and the original language are completely consistent with each other because the species is a subset of the genus. The "new condition" noted in the OFFICE ACTION is in fact deletion of an inadequately taught limitation from the original. Because the inadequately taught limitation in the original application is a species within an adequately taught genus, the deletion is not new matter.

Similar arguments apply to the new deletion at page 23, line 14 regarding the DFEN bit.

Because the Examiner ruled that the AFEN bit was not sufficiently described under 35 U.S.C. 112, first paragraph, this text was deleted. The original rejection by stating that the teaching of AFEN was inadequate failed to give any meaning to this text. This effectively ruled reference to AFEN was meaningless. By rejecting the deletion as new matter, the Examiner is saying

that deletion of an inadequately described phrase introduces new matter. The Applicant respectfully submits this is logically inconsistent and that the amended language does not introduce new matter.

The Applicant respectfully submits that the amendment deleting AFEN does not make the application inadequate to teach the claimed invention. The operative limitations in claim 1 are "detecting a first debug event" and "detecting at least one second debug event." The application discloses at page 17, line 5 to page 29, line 6 and illustrates in Figure 7 circuits including address comparison unit 310, data comparison unit 320 and external comparison unit 330. The operation of address comparison unit 310 is described at page 17, line 19 to page 22, line 22. This disclosure makes clear that address comparison unit 310 receives a bus input from multiplexer 311 (page 18, lines 6 to 8) and generates event signals (page 18, lines 9 to 12). This disclosure teaches that address comparison unit 310 operates in these modes: "breakpoint, counter, parallel signature analysis and data logging support" (page 17, lines 8 to 10), event generation is taught at page 18, line 9 to page 19, line 15); counter functions are taught at page 19, line 16 to the end of Table 3 on page 21; and parallel signature analysis taught at page 22, lines 1 to 22. The disclosure makes clear that the output type is the same for these three modes. The complained text of page 18 only concerns the event generation mode, just one of three modes described. The current amendment merely changes a species limitation not completely described to a genus limitation which includes the species limitation. Thus the amended description of address comparison unit 310 is proper under 35 U.S.C. 112.

The application is sufficient under 35 U.S.C. 112 even in the absence of any description of address unit 310. As noted above, this application also describes data comparison unit 320 and external comparison unit 330. The original application teaches the

data comparison unit 320 at page 22, lines 23 to page 27, line 3 operates in plural modes: "including: event generation such as breakpoints, watchpoints and nET0 and nET1 triggers; parallel signature analysis functions for test; reloadable period counts" (page 23, lines 2 to 5). This teaching includes the general statement "The data comparison unit 310 configures for event generation where the DMSK register serves as a mask register and the DREF register serves as a comparison reference." The original application teaches: address and data breakpoints at page 23, lines 10 to the end of Table 5 at page 25; counter functions at page 26, lines 1 to 6; and parallel signature analysis at page 26, line 7 to the end of Table 6. The application teaches detection of debug events from external events at page 27, line 4 to the end of Table 7 on page 28. Thus the application teaches at least seven modes of detecting a debug event, of which only two are ruled inadequately disclosed. The Applicants respectfully submit that the limitation of claim 1 is adequately taught in the application even if the descriptions of AFEN and DFEN are inadequate. In particular, it is a known principle that a species description can support a genus claim. In this application there are at least five species adequately described and two species inadequately described. The adequately described species are sufficient written description to support the genus limitations of claim 1. Accordingly, the amended description is proper under 35 U.S.C. 112.

The OFFICE ACTION states at paragraph 9-4 on page 8:

> "9-4. Applicant's argument (5) is not persuasive. First, claim 1 has not excluded the event generation mode. Second, Applicant's own admission, 'a specific limitation that is not completely described', confirms the issue of written description."

The OFFICE ACTION further states at paragraph 9-5 on page 8:

"9-5. Applicant's arguments (6) and (9) are not persuasive. For example, the limitation 'external comparison unit 330' has not been exclusively claimed."

The OFFICE ACTION further states at paragraph 9-7 on page 8:

"9-7. Applicant's argument (10) is not persuasive. Because the specification fails to define AFEN bit it is unclear for one skilled in the art how to generate a debug suspend request without undue experimentation. Applicant's own admission, 'lack of adequate description of this bit', confirms the issues of written description and enablement."

The arguments noted in these paragraphs are summarized in the OFFICE ACTION at paragraph 8-2, subparagraphs (5) and (6) on page 6 and subparagraphs (9) and (10) on page 7. As noted above, the original application included adequate disclosure of at least five species of the claimed genus of detecting debug events. The Applicants respectfully submit that this teaching is proper under 35 U.S.C. 112 to support the generic claim. Some species which are included within the generic claim and not specifically claimed are inadequately taught. An adequately taught generic claim may cover species not mentioned in the application. Thus the adequately taught generic claim of this application may also cover the inadequately taught species. No exclusion of this inadequately taught species should be required because the plural species taught in the application are sufficient for the generic claim. In addition, no limitation to one of the species taught (external comparison unit 330) should be required. Accordingly, claims 1 to 7 of this application are allowable under 35 U.S.C. 112.

The Applicants respectfully submit that all the present claims are allowable for the reasons set forth above. Therefore early reconsideration and advance to issue are respectfully requested.

If the Examiner has any questions or other correspondence regarding this application, Applicants request that the Examiner contact Applicants' attorney at the below listed telephone number and address to facilitate prosecution.

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Respectfully submitted,

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